

Amendments to the Claims:

1 (currently amended): A method ~~of representing a net of an integrated circuit die~~ comprising steps of:

(a) receiving as input vertices of each of a plurality of nets ~~a net~~ in an integrated circuit die;

(b) selecting a resolution from a plurality of resolutions for rounding coordinates of the vertices according to a desired level of detail for a net failure density plot;

(c) ~~(b)~~ calculating the rounded coordinates of the vertices according to the ~~having a~~ selected resolution for each of the plurality of nets vertices;

(d) ~~(c)~~ calculating rounded coordinates having the selected resolution to fill in each of the plurality of nets along the net between ~~each of~~ the vertices; and

(e) ~~(d)~~ generating as output the rounded coordinates of the vertices and the rounded coordinates between the vertices to represent each of the plurality of nets ~~the net~~.

2 (currently amended): The method of Claim 1 wherein step (d) ~~(c)~~ comprises incrementing an X-coordinate or a Y-coordinate of each of the rounded coordinates of the vertices ~~coordinate~~ by the selected resolution to generate the rounded coordinates between the vertices ~~each vertex~~.

3 (currently amended): The method of Claim 2 further comprising a step of translating coordinates of combining multiple vertices located within a radius corresponding to the selected resolution coordinates to the same ~~rounded coordinates having an identical value for different vertices in the net into a single rounded~~ coordinate.

4 (original): The method of Claim 2 further comprising a step of entering the rounded coordinates representing the net into a database including at least one of a wafer lot identification, a wafer identification, a die identification, and a layer identification.

5 (currently amended): The method of Claim 1 ~~[[2]]~~ further comprising a step of finding a defect on the integrated circuit die by associating a rounded coordinate that occurs more than a selected number of times in a plurality of failed nets with a location of the defect.

6 (currently amended): The method of Claim 1 ~~[[2]]~~ further comprising a step of finding a number of times each rounded coordinate occurs in a plurality of failed nets.

7 (currently amended): The method of Claim 6 further comprising a step of generating the net failure density plot to display ~~displaying~~ the number of times each rounded coordinate occurs in the ~~the~~ ~~[[a]]~~ plurality of failed nets.

8 (currently amended): The method of Claim 7 further comprising a step of associating a color with the number of times each rounded coordinate occurs in the ~~the~~ ~~[[a]]~~ plurality of failed nets.

9 (currently amended): The method of Claim 7 ~~[[6]]~~ further comprising a step of filtering the plurality of failed nets to isolate rounded coordinates ~~by~~ at least one of a wafer lot, a wafer, a die, an area, and a layer.

10 (currently amended): The method of Claim 1 further comprising a step of generating a plot of a value of a net parameter as a function of the rounded coordinates summed over identical rounded coordinates in each of the plurality of ~~multiple~~ nets.

11 (currently amended): A computer program product ~~for representing a net of an integrated circuit die~~ comprising:

a medium for embodying a computer program for input to a computer; and

a computer program embodied in the medium for causing the computer to perform steps of:

(a) receiving as input vertices of each of a plurality of ~~nets a net~~ in an integrated circuit die;

(b) selecting a resolution from a plurality of resolutions for rounding coordinates of the vertices according to a desired level of detail for a net failure density plot of the integrated circuit die;

(c) ~~(b)~~ calculating the rounded coordinates of the vertices according to the ~~having a~~ selected resolution for each of the plurality of nets ~~vertices;~~

(d) ~~(c)~~ calculating rounded coordinates having the selected resolution to fill in each of the plurality of nets ~~along the net~~ between ~~each of~~ the vertices; and

(e) ~~(d)~~ generating as output the rounded coordinates of the vertices and the rounded coordinates between the vertices to represent each of the plurality of nets ~~the net~~.

12 (currently amended): The computer program product of Claim 11 wherein step (c) comprises incrementing an X-coordinate or a Y-coordinate of each of the rounded

coordinates of the vertices ~~coordinate~~ by the selected resolution to generate the rounded coordinates between the vertices ~~each vertex~~.

13 (currently amended): The computer program product of Claim 11 ~~[[12]]~~ further comprising a step of translating coordinates of combining multiple vertices located within a radius corresponding to the selected resolution ~~coordinates to the same rounded coordinates having an identical value for different vertices in the net into a single rounded coordinate.~~

14 (currently amended): The computer program product of Claim 11 ~~[[12]]~~ further comprising a step of entering the rounded coordinates representing the net into a database including at least one of a wafer lot identification, a wafer identification, a die identification, and a layer identification.

15 (currently amended): The computer program product of Claim 11 ~~[[12]]~~ further comprising a step of finding a defect on the integrated circuit die by associating a rounded coordinate that occurs more than a selected number of times in a plurality of failed nets with a location of the defect.

16 (currently amended): The computer program product of Claim 11 ~~[[12]]~~ further comprising a step of filtering the plurality of failed nets to isolate rounded ~~coordinates by~~ at least one of a wafer lot, a wafer, a die, an area, and a layer.

17 (currently amended): The computer program product of Claim 11 [[12]] further comprising a step of finding a number of times each rounded coordinate occurs in a plurality of failed nets.

18 (currently amended): The computer program product of Claim 17 further comprising a step of generating the net failure density plot to display ~~displaying~~ the number of times each rounded coordinate occurs in the [[a]] plurality of failed nets.

19 (currently amended): The computer program product of Claim 18 further comprising a step of associating a color with the number of times each rounded coordinate occurs in the [[a]] plurality of failed nets.

20 (currently amended): The computer program product of Claim 11 [[12]] further comprising a step of generating a density plot of a net parameter as a function of the rounded coordinates summed over identical rounded coordinates in multiple nets.

21 (canceled)

22 (new): The computer program product of Claim 11 wherein the net failure density plot includes color for revealing a defective area of the integrated circuit die in which multiple net failures occur.